

**CROWLEY et al**  
**U.S. National Phase of PCT/EP2005/002374**

**AMENDMENTS TO THE ABSTRACT**

Please insert the Abstract of the Disclosure which is on the attached sheet.

## **ABSTRACT OF THE DISCLOSURE**

The invention relates to a process for the culturing of cells by continuous perfusion culturing of a cell culture comprising cell culture medium and cells, wherein cell culture medium is added to the cell culture, the cell culture is circulated over a filter module comprising hollow fibers resulting in an outflow of liquid having a lower cell density than the cell culture and the flow within the filter module is an alternating tangential flow. Preferably, culture medium is added at a particular perfusion rate and/or biomass is removed from the culture at least once. The method is especially suitable for the culturing of aggregating cells. The invention also relates to such a process wherein a biological substance, preferably an antibody, is produced by the cells, which biological substance may be further purified in downstream processing.